

In the Claims:

1-2. (Cancelled).

3. (Currently amended) Apparatus adapted to receiving transmission packets of predetermined length, wherein a received packet being either of a first type (B1) or of a second type and comprising a respective first or second training sequence together with a respective first or second information sequence, the second information sequence being longer than the first information sequence, ~~it comprises~~ comprising detector means for isolating the information sequence of said received packet in response to a selection signal identifying the type of said packet and said second training sequence corresponding to a subsequence of said first training sequence, ~~it comprises~~ comprising single demodulator means for demodulating packets of both types.

4. (Previously presented) Apparatus according to claim 1, wherein the information sequences of the different packets result from encoding of the same kind, and the apparatus comprises single decoding means for decoding both said first and said second information sequences.

5. (Previously presented) Apparatus according to claim 1 wherein said second information sequence contains more information than said first information sequence.

6-8. (Canceled).

9. (Previously presented) Apparatus adapted to sending transmission packets of predetermined length, the apparatus comprising formatting means suitable for formatting a first type of packet on the basis of a first training sequence and of a first

information sequence wherein in order to send a second information sequence longer than the first information sequence, said formatting means are also designed to format a second type of packet on the basis of a second training sequence that has a same length as a subsequence of said first training sequence shorter than the first training sequence, and of said second information sequence, said formatting means formatting a packet whose type is identified by an identification signal, said second training sequence being orthogonal to subsequences of the same length of said first training sequence.